

HMIS: HEALTH -2  
FLAMMABILITY -0  
REACTIVITY -0  
PERSONAL  
PROTECTION

PAGE 1 OF 2

MATERIAL SAFETY DATA SHEET U.S. DEPARTMENT OF LABOR  
COMPLIES WITH USDL SAFETY AND HEALTH REGULATIONS, (29 CFR 1910.1200)

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SECTION I: MANUFACTURER

PRODUCT IDENTIFICATION

FORTO CHEMICAL CORP.  
P.O. BOX 910  
GUAYNABO, P.R. 00970

CERAMIC TILE CLEANER

EMERGENCIES: (809)720-7481

CODE #: 152035  
REVISION DATE: 11/18/94

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SECTION II:

HAZARDOUS INGREDIENTS

%

TLV, (IN PPM)

Hydrochloric Acid\* 31%(20Bme)  
Cas #764701-0

40%

5 (PPM)

\*Regulated under Sec 313 of SARA Title III and 40CFR.372

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SECTION III: PHYSICAL DATA

BOILING POINT: 220°F

VAPOR PRESSURE: Not available

VAPOR DENSITY, (AIR=1): Not available

SOLUBILITY IN WATER: Complete

SPECIFIC GRAVITY, (H2O=1): 1.15

PERCENT VOLATILE BY VOLUME: None

EVAPORATION RATE, (ETHYL ETHER=1): Not applicable

PH: Less than 1.0

APPEARANCE AND ODOR: Light amber and light pungent odor.

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SECTION IV: FIRE AND EXPLOSION DATA

FLASH POINT, (METHOD USED): Not applicable.

FLAMMABLE LIMITS: Not applicable.

EXTINGUISHING MEDIA: Water fog or carbon dioxide or dry chemical.

SPECIAL FIREFIGHTING PROCEDURES:

UNUSUAL FIRE AND EXPLOSION HAZARDS: Acid reacts with steel and many other common metals to produce hydrogen gas which is searious fire and explosion hazards.

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## SECTION V: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Has not been determined.

EFFECTS OF OVEREXPOSURE: Eyes: can cause severe damage; skin: causes burning sensation; lungs: damage to nasal &amp; respiratory passages.

## EMERGENCY FIRST AID PROCEDURES:

INGESTION: Do not induce vomiting. Give plenty of water; give milk. Seek medical attention.

EYES: Flush with large amounts of water, lifting lids. Get medical attention.

SKIN: Flush area with water, remove contaminated clothing. Get medical attention.

INHALATION: Remove individual to FRESH AIR. If breathing is difficult administer oxygen. Get medical attention.

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## SECTION VI: REACTIVITY DATA

STABILITY DATA: Stable.

INCOMPATIBILITY: Avoid contact with strong alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS: Cannot occur.

HAZARDOUS POLYMERIZATION: Cannot occur.

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## SECTION VII: SPILL OR LEAK PROCEDURES

SMALL SPILLS: Cover area with sodium bicarbonate or soda ash, mix and make slurry. Scoop up slurry and wash site.

LARGE SPILLS: Persons not wearing protective equipment should be excluded from area. Stop spill at source. Dike to prevent spreading. Follow small spills procedure.

FOLLOW STATE AND LOCAL REGULATIONS FOR DISPOSAL OF LARGE NON-RECLAIMABLE SPILLS

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## SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: NIOSH/MSHA approved respirator for HCL.

VENTILATION: Provide sufficient mechanical ventilation.

PROTECTIVE GLOVES: Wear resistant gloves (Consult safety supplier).

EYE PROTECTION: Chemical splash goggles.

OTHER PROTECTIVE EQUIPMENT: To prevent skin contact, wear impervious clothing and boots.

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## SECTION IX: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Addition of water releases heat which can result in violent boiling and spattering. Always add slowly and in small amounts.

## OTHER PRECAUTIONS:

AS WITH ALL CHEMICALS, USE WITH DUE CARE ACCORDING TO LABEL INSTRUCTIONS AND PRECAUTIONS.